

Title (en)

Downhole tool with hydraulic timer.

Title (de)

Werkzeug mit einer hydraulischen Schaltung zur Verwendung im Bohrloch.

Title (fr)

Outil de fond de puits avec minuterie hydraulique.

Publication

EP 0482926 A2 19920429 (EN)

Application

EP 91309836 A 19911024

Priority

US 60282390 A 19901024

Abstract (en)

A downhole tool apparatus such as a sampler (120) includes an operating mechanism (166) and a hydraulic timer (206). The hydraulic timer (206) is operably associated with the operating mechanism for providing a time delay prior to operation of the operating mechanism. The hydraulic timer includes a fluid flow restriction (214) and a spring biased piston (208) which pushes a predetermined volume of hydraulic fluid through the fluid flow restriction (214). An initiator valve (230) is located hydraulically in series with the fluid flow restriction (214). The time delay is provided by the time taken for the fluid to pass through the restriction. Thereafter the operating mechanism is effective. <IMAGE>

IPC 1-7

E21B 41/00; **E21B 49/08**

IPC 8 full level

E21B 34/10 (2006.01); **E21B 41/00** (2006.01); **E21B 49/08** (2006.01)

CPC (source: EP US)

E21B 34/108 (2013.01 - EP US); **E21B 41/00** (2013.01 - EP US); **E21B 49/082** (2013.01 - EP US)

Cited by

GB2363147B; EA012318B1; GB2289488A; US5664629A; GB2289488B; US7779911B2; WO2006107215A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0482926 A2 19920429; **EP 0482926 A3 19930203**; **EP 0482926 B1 19960911**; DE 69122027 D1 19961017; DE 69122027 T2 19970206; DE 69126999 D1 19970904; DE 69126999 T2 19971127; EP 0718466 A1 19960626; EP 0718466 B1 19970723; NO 914162 D0 19911023; NO 914162 L 19920427; US 5103906 A 19920414

DOCDB simple family (application)

EP 91309836 A 19911024; DE 69122027 T 19911024; DE 69126999 T 19911024; EP 96200052 A 19911024; NO 914162 A 19911023; US 60282390 A 19901024